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REVIEWS AND BOOK NOTICES.

RECENT LITERATURE ON ANCIENT ANIMAL NAMES AND EFFIGIES.

Attention has frequently been called to the difficulty of identifying with certainty many of the species of animals and plants mentioned by ancient authors or depicted in minor art productions that have come down to us from remote antiquity. That the theme is a fertile one, commanding the interest and inviting the coöperation alike of classical and natural history students, none will deny. We may be permitted in the present article to take note of some recent contributions to the literature of this subject, our purpose being less a presentation of original results than an attempt to show along what lines investigation may profitably be conducted, and what sort of problems and difficulties are to be encountered.

To begin on native ground. In an address before the American Academy of Arts and Sciences in 1860, as printed in the fourth volume of the Proceedings of that body, the late Professor Sophocles of Harvard remarks as follows:

"Few things connected with Greek philology present more perplexity to the scholar than the identification of plants and animals whose names occur in ancient Greek authors. With regard to the Greek naturalists, as a common rule, they were content to mention some of the most striking peculiarities of plants and animals. Minuteness of observation and accuracy of description were apparently undervalued by most of them. Consequently they had no *technical language* properly so called; the popular language of the day being deemed sufficiently definite for their purpose. And as each Greek city had its local peculiarities, it was natural that more local names than one should be employed to designate a given species."

Elsewhere in the same communication occurs this passage:

"A considerable number of plants and animals mentioned by ancient Greek authors may be identified with the help of the modern language of Greece, as spoken by the common people, provided the following proposition be admitted; that *when the ancient name of a plant or animal is still heard among the Greeks, the presumption is that it is the traditional name of that plant or animal.*"

About the same time, Cornelius Felton, former President of Harvard, a noted Philhellene of whom Lowell said that he "was Greek to the finger-tips", records with regret in his first edition of the Aves (1861) that a considerable portion of the birds of Athens' great comic poet still remain unidentified; and this, too, notwithstanding the aid had been invoked of no less eminent a

naturalist than Louis Agassiz in an effort to determine them. Felton likewise, in commenting on Agassiz's rediscovery of the *γλάρις* of Aristotle (= *Parasilurus* of modern systematists), maintains with Professor Sophocles that "the ancient names of birds, fishes and quadrupeds, in numerous instances, are preserved among the common people, under forms modified in the same way as other classes of words are by the uneducated."¹

After a half century of progress we find a philologist of our own day addressing the Congress of Arts and Science at St. Louis on The Problems of Greek, and referring to the matter of biological nomenclature in these words:²

"The names of animals and plants are troublesome. The *αἰλουρος* and *γαλῆ*, with the later *κάττα* and *κάτρος*, have a literature of their own, and yet the cat problem remains unsolved. Despite volumes on Greek birds, the make-up of the chorus in the Aves is not altogether settled. . . ."

Numerous other testimonials of like nature might be given. Not only is it true that volumes have been written on Greek birds—some of them very estimable, as witness D'Arcy W. Thompson's *Glossary of Greek Birds* (1895)—but ichthyological names in particular have been carefully investigated by both naturalists and philologists from the time of Scaliger onward. Noteworthy among the older works is J. G. Schneider's *Synonymia Piscium graeca et latina* (1789), published as an extension and emendation of a like-named essay of Peter Artedi, father of modern systematic ichthyology. Among recent contributions to the same subject may be mentioned Jordan and Hoffmann's *Catalogue of the Fishes of Greece* (1892), and Krumbacher's elucidation of a newly-found thirteenth century "Fishbook" (1906). Additional references to the literature of this topic will be found in articles contributed to Science for 1905-7 by Dr. Theodore Gill and the present writer.

But to pass on from the birds and fishes, let us consider the higher vertebrates. In spite of the vast amount of effort that has been expended since Cuvier's or since Darwin's time in tracing the history of the different animals domesticated by man, the "cat problem" to which Professor Humphreys alludes is by no means the only one remaining unsolved. With regard to this very matter Otto Keller of Innsbruck remarks as follows in a recent instructive article:³ "Die Geschichte der Katze gehört zu den interessantesten, aber auch zu den schwierigsten Kapiteln der Kulturgeschichte überhaupt. Es scheint, man kann nicht vorsichtig genug sein". This admission is the more significant

¹ Proc. Amer. Acad. Arts Sci. (1861) 4, p. 334.

² Milton W. Humphreys, *The Problems of Greek*, Cong. Arts Sci., St. Louis Expos. (1906), 3, p. 165.

³ Keller, *Zur Geschichte der Katze im Altertum*, Mitt. deutsch. Arch. Inst., Röm. Abth. (1908), 23, p. 40. Cf. also his *Thiere des classischen Alterthums* (1887). Wessely, K., *Woher stammt die Katze?* Urania, 1909.

considering that it is from the author of an extensive series of contributions to the history of feral and domestic animals in antiquity,¹ and estimating at their full value the enlightening researches along similar lines by his namesake Dr. Conrad Keller of Zürich (*Die Abstammung der älteren Haustiere*, 1902), and of Eduard Hahn and Victor Hehn (*Die Haustiere und ihre Beziehungen zur Wirtschaft des Menschen*, 1896; *Kulturpflanzen und Haustiere*, 6th ed., 1894).

Somewhat analogous to the cat problem is the question as to the antiquity of the lion in Greece, this being one of the four large quadrupeds which have become extinct in that country since the period of Athenian supremacy. The identity of the *Urus* or *Aurochs*, which persisted in Europe as late as the sixteenth century, has long been a perplexing topic around which has grown up a considerable literature. Those interested in the latest phase of the discussion will do well to consult A. B. Meyer's article on the lion in Greece, and Yermoleff's on the Caucasian bison, reprinted in the Annual Report of the Smithsonian Institution for the years 1903 and 1906 respectively. It may not be amiss to recall in this connection that the distinguished French zoologist, Geoffroy Saint-Hilaire, contributed a very readable essay on leonine species formerly inhabiting Hellas.²

It would be an easy but thankless task to multiply illustrations of this sort, for the fact is sufficiently evident that our knowledge of ancient natural history matters is in many respects imperfect and confused. Reviewing the individual classic authors, one finds that the animals of Homer, Herodotus³ and Aristotle have received very considerable attention, whereas relatively little has been bestowed upon the rest, save for an occasional disquisition on the fish-names occurring among the *scriptores minores*.⁴

Nor, with the exception of the now antiquated work of H. O. Lenz on the Zoology of the Greeks and Romans (1856), has there been any comprehensive and adequate exposition of the same theme. As compared with the *Hierozoicon* of Bochart, a really marvellous repository of information on biblical animals, and the most authoritative work of its kind, the deficiency is noteworthy and regrettable. For the compilation of such a work special aptitude and training are, of course, necessary; or, as a

¹ An idea of the extent of the special literature that has accumulated during recent years may be had on consulting the general index of Bursian's *Jahresberichte* (1898).

² *Expéd. Scient. de Morée* (1833), 3, p. 34 ff.

³ Benecke, *Ueber die Thiere des Herodots*, *Wissensch. Monatshefte*, 1879.

⁴ This predilection for investigating ichthyological names extends also to Semitic and other oriental writings. Compare, for example, H. Lenz, *Die semitischen Fremdwörter im Griechischen* (1895). I. Löw, *Aramäische Fischnamen*, in *Nöldeke's Anniversary Volume* (1906, 1, p. 549 ff.). Delitzsch, *Assyrische Thiernamen* (1874). F. Hommel, *Die Namen der Säugethiere bei den süd-semitischen Völkern* (1879). J. J. Köhler, *Die altenglischen Fischnamen* (1906).

learned critic (A. Rüge) has said, "tiefdringende naturwissenschaftliche und philologische Kenntnisse zusammen sind dazu nötige Vorbedingungen". The necessary qualifications for such a task were possessed in high degree by two eminent German zoologists who have recently deceased: the late J. Victor Carus, whose *History of Zoology* is a standard treatise, and Rudolf Burckhardt, author of a short compendium on the same subject, and of numerous suggestive articles on primal biological science (*Ueber antike Biologie; Das koische System*, etc.).

In studying the zoological notices and allusions of a given classic author one turns first of all for aid to the critical notes and commentaries supplied by various editors and recensors of the text. For instance, in the case of the Aves, one will note carefully the Agassizian identifications given by Felton, and determine whether any of these should be modified in the light of the newer conclusions of Benjamin B. Rogers, embodied in his edition of 1906. An inquirer will in the next place consult the special glossaries that have been prepared of Greek and Latin animal names, checking his results with the aid of those systematic works—and of these there are many excellent ones—which deal with the fauna of the two peninsulas. Lastly our investigator, if he has sufficient patience and a liberal sense of that "*curiosité permanente et empressée*" which the genial philosopher of Péri-gord enjoins upon us, will not disdain laying under contribution the endless series of inaugural dissertations, *Schulprogramme*, *Promotionsreden*, and varying assortment of serious and dilettante articles in classical and scientific periodicals. It is in this way that contributions of real and permanent value have been produced, such, for instance, as the critical commentaries on Aristotle's *Historia animalium* (a new one by L. Dittmeyer has only recently made its appearance), or the late Hugo Berger's *Geschichte der wissenschaftlichen Erdkunde der Griechen* (2d ed., 1903), or Hugo Bretzl's treatise on *Botanical Knowledge* resulting from the Alexandrian Conquest (1903).

A word of caution, however, as to the trustworthiness of the conclusions put forward by amateur essayists. Too often these are lacking in critical insight or discernment, or there is insufficient foundation of fact, or the meaning of the facts themselves is misconceived, or again the extraordinary, the fantastic and the far-fetched is preferred to the familiar, simple and plausible, or yet again it may be that a spirit of vanity disinclines one to be satisfied with results that are neither novel nor positive in character; all of which is inimical to that state of mind which is content, when conditions demand it, to hold judgment in suspension. Common sense conclusions are always safest, and conjectures which are chiefly remarkable for their ingenuity, and partake of the nature of a contest in the art of guessing, never fail to arouse scepticism. Wisely declared Hippocrates: "The

sinews and fibres of knowledge consist in believing nothing rashly."

It is a common rule of logic that the improbable is always to be distrusted. But preliminary to the application of this principle to the matter in hand it is necessary to know what constitutes the improbability of an alleged fact or conclusion. Precisely here are seen the advantages of special equipment, and conversely the lack of it exposes the unwary to numerous pitfalls. The danger will perhaps be better appreciated by citing one or two examples. For instance, there is not the slightest scientific foundation for the hypothesis that the prototype of the legendary Polyphemus was a gorilla, a creature which first became known to the ancient world through the *Periplus* of Hanno;¹ nor for the equally absurd identification of Scylla with a gigantic octopus, far exceeding in size the solitary Mediterranean species;² nor for the alleged anticipation of the Darwinian theory of evolution by an Aphrodite cultus at Mycenae;³ nor for the fanciful conjecture put forward in all seriousness that the Indian creature made known by Ctesias "with powerful tusks above four feet long"—whence its subsequent appellation *odontotyrannus*—was in reality the mammoth;⁴ nor that the "bird" *δίκαιρον* (in point of fact none other than the Scarabaeoid dung-beetle), whose ejections are said to have produced painless death like sleep, is merely an allegorical paraphrase for opium;⁵ nor for the alleged commensal habits of the crocodile and trochilus, or spur-winged plover.⁶

Amongst other things it will be seen from the few instances we have taken at hazard that Euhemerism is responsible for some very curious deductions in the domain of ancient animal nomenclature. On the other hand, the judicious employment of this principle is often productive of gratifying results, as witness the following illustrations.

¹ Zell, Bursian's *Jahresb.* (1901), 117, p. 11. There is some doubt whether the 'gorilla' (onomat.) brought back by the famous Carthaginian navigator of the fifth century before our era was the same anthropoid to which the name is now applied. By many the meagre description is thought to refer to the chimpanzee. A connection between the cyclopean legend and Sicilian bone-caverns has been suggested by D'Archiac (*Revue Scient.*, 1863, 1, p. 395).

² Tümpel, *Der mykenische Polyp und die Hydra*. *Festschr. f. J. Overbeck*, 1893, p. 144 ff. Also in *Philol.* (1894), 53, p. 551. H. Steuding, *Skylia, ein Krake am Vorgebirge Skyllaion*, *Neue Jahrb. f. Phil. u. Päd.*, 1895, 151, p. 185.

³ F. Houssay, *Les théories de la genèse à Mycènes et le sens zoologique de certains symboles du culte d'Aphrodite*, *Revue archéol.*, 1895, pp. 1-27. H. Coupin, *Le poulpe et la croix gammée*, *La Nature*, May 20, 1905, p. 396.

⁴ J. F. Brandt, in *Bull. Acad. Imp. Sci. St. Pétersb.* (1861), 3, p. 335. Graefe, in *Mém. ibid.* (sec. sci., polit., etc., 1832), 1, p. 69. Olfers, *Abhandl. Akad. Wiss.* Berlin f. 1839 (1842), p. 62.

⁵ Ch. Lassen, *Indische Altertumskunde*, 2d ed., 1874, 2, p. 652.

⁶ There are not wanting modern editors who repose confidence in this time-worn observation myth which has been handed down to us from the father of history (Herod. 2, 68).

First, to note a popular fallacy, widespread in point of space and time, and having to do with remains of fossil animals. Readers are familiar with the veneration in which the bones of "giants" and legendary heroes were held throughout classical antiquity. Leaving out of account the more primitive gigantomachia,¹ there are a number of passages in ancient authors describing occurrences which are paralleled in patristic and secular chronicles of later times, especially those recording the translation of bones of saints. Some of them, furthermore, find their analogue in the comparatively modern refflorescence of the Teutobochus myth. One has only to recall the very circumstantial account given by Herodotus (1, 67 ff.), Plato (*de Rep.* 2, 3), Pausanias (1, 35; 8, 29), Philostratus (*Heroicus*, 1) and others of the discovery of the remains of Homeric chieftains and divers local heroes, reports which tally at all points with the exhumation of fossil vertebrate remains. There is often internal evidence, apart from the huge size of the members, to show that these could not possibly relate to human skeletons. Besides, even in antiquity there were not wanting thoughtful persons who scouted the popular interpretation of these relics. Suffice it to note that Suetonius, Hadrian's astute secretary, shrewdly observes that "the bones of huge beasts or sea-monsters both have and still do pass current for the bones of giants."²

Now this rationalistic, or if one will, Euhemeristic interpretation of the passages³ in question which relate to the "graves of giants" has pointed the way to practical results of far-reaching importance. Taking his cue from the ever-helpful Pausanias, who mentions the finding of huge bones in the plain near Megalopolis, Dr. Theodore Skouphos⁴ of the University of Athens, organized a systematic search for skeletal remains in the vicinity indicated, and was rewarded by the discovery of a new and extremely rich fossiliferous locality, rivaling the famous bone-bed of Pikermi, on the road between Marathon and Athens.⁵

¹ Cf. Max Mayer, *Die Giganten und Titanen in der antiken Sage und Kunst* (Berlin, 1887). See also Cuvier's *Hist. des sci. nat.*, etc.

² Cited by Charles Blount, in his curious annotations on Philostratus, 1680 (concerning the Life of Apollonius Tyaneus), a work which was ineffectually suppressed for political reasons.

³ The loci critici are commented upon in the following able articles: E. von Lasaulx, *Die Geologie der Griechen und Römer. Abhandl. bayer. Akad. Wiss., phil.-hist. Cl.* (1853), 6, p. 577. M. Hoernes, *Einige Notizen alter Classiker über Auffindung vorweltlicher Thierreste* (sog. Riesenknochen). *Denkschr. Akad. Wiss. Wien* (1880), 40, p. 308. J. Schvarcz, *The Failure of Geological Attempts made by the Greeks* (London, 1862-68).

⁴ Skouphos, *Ueber die paläontologischen Ausgrabungen in Griechenland in Beziehung auf das Vorhandensein des Menschen*. C. R. Cong. Internat. Archéol., 1ère session (Athens, 1905). Remains of the elephant, rhinoceros, hippopotamus, mastodon, hyaena, boar, and various ruminants have been brought to light in great profusion as a result of this fortunate discovery.

⁵ First exploited by A. Wagner of Munich, and described in detail by the late Professor Albert Gaudry in his *Animaux fossiles et géologie de l'Attique* (Paris, 1862-67).

For a second illustration, let us take the case of the problematical 'odontotyrannus' of the Alexander saga, whose characters are derived with some curious modifications from the unnamed "amphibian" of Palladius, or the σκώληξ of Ctesias and Aelian; "bestia maior elephante, tribus armata in fronte cornibus: quam Indi appellant *odontotyrannum*, capitis equini, coloris atri". (Vincent de Beauvais, *Speculum hist.*, 4, 54). All sorts of guesses have been made as to the meaning of this word. One author, as we have seen, gravely asserts it to have been the mammoth, whose survival into historical times thus becomes a necessary postulate. Various others have claimed it to be the crocodile, boa constrictor,¹ Platanistid of the Ganges, elephant and rhinoceros; and the lexicons usually render the appellation "vermes."

The latest and most successful attempt at a solution of the problem is that of Curt Müller,² undertaken at the instigation of Professor Joseph Partsch, who has so greatly augmented our knowledge of the physical geography of Greece. Ctesias is unquestionably the ultimate source of the widely varying versions in regard to this remarkable creature, as he was also the first to introduce the knowledge of the elephant and other oriental wonders—to say nothing of the fabulous unicorn—to the western world. But just as the origin of the μονόκερως has been traced by Schrader³ and others to ornamental designs painted on the walls of the Persian court at Persepolis, so too the odontotyrannus is susceptible of a somewhat similar interpretation, the description of it possibly harking back to Indian textile designs. In different ways it has been possible to reconcile other apparently incredible statements of Ctesias—as for instance, that relating to a tribe of swarthy-hued Indians who subsist exclusively on lacteal diet and have no evacuations—with the reports of modern travellers.⁴ Wherefore, as Lassen remarks, "the accusations of mendacity heaped upon the Greek physician by the ancients have been generally withdrawn."⁵

An ornithologic name of analogous formation to the last is pterygotyrannus, found among the Indian glosses in the *Lexicon* of Hesychius (L. H. Gray and M. Schuyler, *Indian Glosses* in Hesychios. *Amer. Journ. Phil.* 22, p. 199). This has been variously interpreted as a pheasant, parrot and peacock, with the chances in favor of the first-named (*Phasianus argus*). The word itself is interesting for recalling certain vernacular epithets

¹ Lassen, who proposes this conjecture, is happily oblivious of the fact that this reptile is peculiar to South America.

² Müller, *Studien zur Geschichte der Erdkunde im Altertum*. Inaug. Diss., Breslau, 1902.

³ Schrader, *Ueber Monoceros, etc.* Sitzungsber. preuss. Akad. Wiss., 1892, 2, p. 573.

⁴ Capt. F. Wilford, in *Asiatic Researches*, 1809, 9, p. 69.

⁵ Lassen, *Ind. Alterthumskunde*, 2d ed., 1874, p. 641.

of domestic animals, as developed in the large cities of the Graeco-Roman empire. Among slang expressions of this sort, as Professor Sophocles has pointed out, are *πετεινός*, *cock*, literally the winged one; *ἄλογον*, *horse*, literally the irrational animal.¹

Yet another example of keen philological analysis is furnished by the application of the Euhemeristic principle to the myth of the gold-digging ants. On this point we will content ourselves with quoting the following paragraph from an article by the director of the Dublin Museum of Science and Art, Professor Valentine Ball:²

"The so-called myth of the gold-digging ants was not cleared up till, by chance, information was received as to the customs and habits of the Thibetan gold miners of the present day. Then Sir H. Rawlinson, and independently, Dr. Schiern, of Copenhagen, were enabled to come forward and state beyond a question of a doubt that the *myrmeces* of Herodotus and Megasthenes were Thibetan miners, and, it may be added, their dogs. The same dogs are now for the first time identified, as will be seen further on, with the griffins. . . . I will mention also that the horn of the gold-digging ant, which we are told by Pliny was preserved in the temple of Hercules at Erythrae, and which for centuries has been the subject of much speculation, was probably merely one of the gold-miners' pickaxes. I have been informed by an eyewitness, Mr. R. Lydekker, that the picks in use by agriculturists and miners in India consist of horns of wild sheep mounted on handles."

It may be instructive perhaps to cite still one more instance where an apparently insoluble nature-myth has been shown by means of comparison and correlation with known facts to contain a substantial nucleus of truth. Throughout mediaeval and ancient literature are found abundant allusions to the spontaneous generation of insects, chiefly bees and wasps, from decaying animal carcasses. This belief was extremely widespread, and not infrequently invested with symbolical significance, in so far as corruption may have been thought to be put off for incorruption. Even among Arabian chronicles of the first millennium of our era we meet with passages like the following, which is extracted from

¹ Proc. Amer. Acad. Arts Sci., 1860, 4, p. 409. One should be on one's guard against accepting with too great literalness an author's assignment of characteristics to particular animals, since experience shows that in ancient, precisely as in modern times, these are sometimes arbitrarily transposed from one creature to another. Thus, when the Romans first encountered the elephant in the army of Pyrrhus in Lucania, they gave it the name of the "Lucanian ox", as Lucretius says (*de Rer. Nat.* v. 1301):

Inde boves lucas turrito corpore, tetras,
Anguimanus, belli docuerunt volnera Poeni
Sufferre, et magnas Martis turbare catervas.

To mention only one modern instance, readers of Voltaire will recall how in *Zadig* various qualities are attributed to the basilisk which conventionally belong to other fabulous creatures.

² Proc. Roy. Irish Acad., 2d ser., 1885, 2, p. 303.

Albiruni's Chronology of Ancient Nations (Sachu's ed., 1879, p. 214):

"The formation of scorpions out of figs and mountain balm, that of bees from the flesh of oxen, that of wasps from the flesh of horses, is well known to all naturalists. . . . For worms are produced out of flesh, and in flesh lice and other animals are living."

For a simple and convincing explanation of this observation-myth, scholars are indebted to the late Baron Osten-Sacken, of Heidelberg, who identifies the "Bugonia" of ancient fable with the mimetic fly *Eristalis tenax*, and the supposed "wasps" emanating from putrescent horse carrion with another Dipterid insect, *Helophilus*. The Baron's interesting essay On the Bugonia of the Ancients is now readily accessible, having been reprinted from an Italian entomological journal in English dress, to which are added some supplementary comments. (Heidelberg, 1893-5).

Turning now to our collateral topic, we may note some of the attempts that have been made toward elucidation of the graphic or plastic representations of forms of animal life that have come down to us from olden times. In this category are included engraved portraits, whether on gems, coins, metal-work or the monuments; statuary, in the round or relief, and of the materials usual in the plastic arts; and lastly the protean assemblage of vase and mural paintings that yield such a rich mine of information. The subjects depicted in Pompeian wall frescoes have been exhaustively treated in well-known monographs, and separate indices have been published of animal and floral representations. So too, have the animal designs engraved on island gems¹ and coins received special attention at the hands of competent students. The minor art productions which have been perhaps least investigated from a strictly zoological point of view are statuettes,² ceramic paintings and inscriptions.

Regarding the last-named, it is interesting to recall that Egyptian animal inscriptions were first studied by Champollion and Geoffroy Saint-Hilaire during and following Napoleon's ill-fated expedition; and, after nearly a century of neglect, there is evidence of a revival of interest in this direction. Very important for the naturalist, from their bearing on former geographical distribution and variation of animal species during the lapse of a score of centuries—however imperceptible that may appear to be—are the recent studies of Lartet and Gaillard on the mummified animals of Egypt.³ We may refer also to a brief article by Dr. R. Lydekker of the British Museum, entitled Some

¹ Cf. Imhoff-Keller, Tier u. Pflanzenbilder auf Münzen u. Gemmen, etc.

² Blumenbach, J. F., Specimen historiae naturalis antiquae artis operibus illustratae eaque vicissim illustrantis. Got., 1808. Remarkable for being an early portrayal of the rare two-horned rhinoceros.

³ Arch. Mus. d'Hist. Nat. de Lyon, 1903, 7, No. 2.

Ancient Animal Portraits, which was contributed to *Nature* for 1904, and presents the following pertinent comments (p. 207):

"Very little attention appears to have been hitherto directed to the correct identification of wild animals represented in the ancient Assyrian and Babylonian sculptures, and in the frescoes of Egypt under the Pharaohs. Antiquarians and Egyptologists seem in the main to have contented themselves with calling an animal a gazelle, an antelope or a deer, without the slightest attempt to ascertain whether such titles are correctly bestowed, and in some cases utterly oblivious of the fact that deer (with the exception of the Barbary red deer and the fallow-deer in Tunisia, Algeria and Morocco) are quite unknown in the African continent."

Although it is true that comparatively little has been done in investigating Asiatic animal inscriptions, nevertheless a laudable beginning was made in the last quarter of the preceding century by W. Houghton in his essay *On the Mammalia of the Assyrian Sculptures*.¹ In this the author frankly acknowledges his indebtedness for numerous hints to Delitzsch's work on Assyrian Animal Names, indispensable to all students of the monuments. More recently O. Schrader has contributed a suggestive article on certain profile figures represented in oriental art designs, from which may be traced *inter alia* the conventional idea of fabulous creatures like the unicorn and the chimaera.² Properly to appreciate these and similar results is to recognize, and, should it lie within one's power, to respond to an incentive for further progress.

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The Acropolis of Athens. By MARTIN L. D'OGE. 8vo. The Macmillan Co., 1908. Pp. XX+405.

This handsome gilt-edged volume, published as a companion to Seymour's *Life in the Homeric Age*, is profusely and beautifully illustrated with nine photogravures, seven plans (one colored), and 134 cuts in the text. In view of the many works which have appeared on Athens as a whole, it is instructive to have one which is limited to the Acropolis. Yet so much of the history and culture of Athens centered about the Acropolis that its history is really the history of Athens and we have in the present work almost as large a volume as Gardner's *Ancient Athens*, to which it is similar in make-up and from which many illustrations are taken. The

¹ Houghton, *Trans. Soc. Bibl. Arch.*, 1877, 5, p. 33; pt. 2, p. 319.

² See too, in *La Nature* for April 17, 1909, Prof. E. Trouessart's article entitled *La licorne chez les anciens et les modernes*, and one by O. Théatis in a recent number of *Le Musée*, on the Lion in Ancient Art. In this last the lion is shown to be one of the most frequently represented animals in ancient art, the oldest example cited being an ivory statuette found at Abydos.